





INTERNAT	PCT TONAL PRELIMINARY EXAMINATION REPORT		
Anslation internat	(PCT Article 36 and Rule 70)		
Applicant's or agent's file reference 153772.1/LE/mb	FOR FURTHER ACTION See Notification of Transmittal of Internation Preliminary Examination Report (Form PCT/IPEA/4		
International application No. PCT/CH2002/000494	International filing date (day/month/year) Priority date (day/month/year)		
International Patent Classification (IPC) or H01J 35/16, 19/60	09 September 2002 (09.09.2002) r national classification and IPC		
Applicant	COMET HOLDING AG		
This report is also accompa	of sheets, including this cover sheet. anied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have to for this report and/or sheets containing rectifications made before this Authority (see the Administrative Instructions under the PCT). a total of sheets.		
IV Lack of unity of i	nt of opinion with regard to novelty, inventive step and industrial applicability invention		
VI Certain documen VII Certain defects in	ent under Article 35(2) with regard to novelty, inventive step or industrial applicability; lanations supporting such statement ats cited in the international application ions on the international application		
VI Certain documen	ats cited n the international application		



International application No.

PCT/CH2002/000494

I. Basis of the report									
1. With	regard to	the elements of the international application:*							
	the international application as originally filed								
$\overline{\boxtimes}$	the desc	1							
	pages	1, 2,	7, 10-12	, as originally filed					
	pages			, filed with the demand					
	pages	3, 3a, 4, 5, 5a, 6, 8, 9, 13	, filed with the letter of	24 June 2004 (24.06.2004)					
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	pages		. , ,	, filed with the demand					
	pages	1-14	, filed with the letter of						
	the drav	vings:							
	pages	-	1-7	, as originally filed					
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the The	internationse element the land the land or 55.3 ith regard eliminary elements furnish furnish furnish internations.	pard to the language, all the elements marked above were available or furnished to this Authority in the language in which national application was filed, unless otherwise indicated under this item. ements were available or furnished to this Authority in the following language which is: the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3). The gard to any nucleotide and/or amino acid sequence disclosed in the international application, the international arry examination was carried out on the basis of the sequence listing: The international application in written form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has							
in an	This rebeyond this report of 70.17).	the description, pages	mendments had not been made, splemental Box (Rule 70.2(c)).** ving Office in response to an invited to this report since they do n	ation under Article 14 are referred to ot contain amendments (Rule 70.16					

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1-14

NO

YES

NO

v.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
1.	Statement						
	Novelty (N)	Claims	1-14	YES			
		Claims		NO			
	Inventive step (IS)	Claims	1-14	YES			

2. Citations and explanations

Industrial applicability (IA)

1. This international preliminary examination report makes reference to the following documents:

Claims

Claims

Claims

D1: EP-5402464

D8: DE-19800766.

2. Clarity (PCT Article 6)

The present claim 12 defines a method for producing a high voltage vacuum tube according to claims 1 to 11, without, however, clearly defining the method steps to be carried out in order to produce the high voltage vacuum tube. Therefore, the present claim lacks clarity within the meaning of PCT Article 6 (cf. PCT Guidelines, paragraph III-4.4).

- 3. Novelty (PCT Article 33(2))
- 3.1 D1 discloses a high voltage vacuum tube (X-ray tube) according to the preamble of the present claim 1. The arch projecting toward the tube interior encompasses a sloping front area, a truncated lateral area and a raised lateral area. The sloping front area of the annular cathode insulator is sloped away from the disc center of the annular

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insulator.

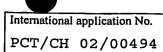
The front area and the lateral areas of the annular insulator in D1 are not, however, arranged at an angle with respect to the axial direction of the annular insulator as defined in claim 1.

D8 discloses a high voltage vacuum tube (X-ray tube) 3.2 with an annular insulator embodied on the cathode side, said annular insulator having an arch projecting toward the tube interior with a sloping front area, a truncated lateral area and a raised lateral area. The sloped front area of the annular cathode insulator is sloped away from the disc center of the annular insulator. D8 does not indicate that the front area and the lateral areas of the annular insulator in D1 are arranged at an angle with respect to the axial direction of the annular insulator, but the front area and the raised lateral area appear, proceeding from the figure in D8, to be arranged at an angle like that defined in claim 1.

The high voltage vacuum tube in D8 does not, however, have a <u>cylindrical</u> metal housing. Furthermore, the angle γ of the truncated lateral area appears to have a value of $\gamma=0^{\circ}$ (designated as in claim 1).

3.3 The other documents cited in the international search report are less relevant than D1 and D8 to claim 1.

Consequently, the subject matter of the present claim 1 and therefore also of dependent claims 2-11, 13 and 14



appears to be novel (PCT Article 33(2)).

A method for producing a high voltage vacuum tube according to claim 1 (cf. claim 12) that clearly defined the method steps to be carried out in order to produce a high voltage vacuum tube according to claim 1 would likewise be regarded as novel.

4. Inventive step (PCT Article 33(3))

None of the documents cited in the international search report discloses an annular insulator with the front area and the two lateral areas arranged at an angle as defined in claim 1.

Furthermore, none of the documents (such as D1 and D8) render it obvious to select the angles α , β , and γ (designated as in claim 1) as defined in claim 1.

Also, there does not appear to be a reason for the special shape of the annular insulator in D8. This shape could, for example, be associated with the special housing design (constriction in the center and a conical shape on the cathode side). Therefore, it cannot be regarded as obvious for a person skilled in the art to use this annular insulator in a high voltage vacuum tube like that known from D1. Even if this were the case, at least the angle γ of the truncated lateral area would differ from that of the present claim 1.

Consequently, the subject matter of the present claim 1 and therefore also that of dependent claims 2-11, 13 and 14 appears to be inventive (PCT Article 33(3)).

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A method for producing a high voltage vacuum tube according to claim 1 (cf. claim 12) that clearly defined the method steps to be carried out in order to produce a high voltage vacuum tube according to claim 1 would likewise be regarded as inventive.

5. Industrial applicability (PCT Article 33(4))

The subject matter of the present claims 1-11, 13 and 14 appears clearly to be industrially applicable (PCT Article 33(4)).

A method for producing a high voltage vacuum tube according to claim 1 (cf. claim 12) that clearly defined the method steps to be carried out in order to produce a high voltage vacuum tube according to claim 1 would likewise be regarded as industrially applicable.